

# Concept for Coulomb Force Line-Enabled Toroidal Ion Trap for Enabling Photonic Mass Measurement

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## Introduction

In order to experimentally confirm the mass or range of possible masses of the photon, a new type of ion trap will need to be constructed which is capable of constraining a single photon in flight to a circular path over a comparatively large area in which the path of flight is continually curved through highly unformed Coulomb Force Lines.

## Abstract

In addition to constraining the path of a photon in flight in order to prevent its contact with the walls of such a toroidal trap, such a mechanism would incorporate an intermittently enabled additional CFL line somewhere along the toroidal trap. The trap would also feature one or more excitons around the perimeter which would be used in order to siphon infinitesimal amounts of voltage from the circulating photon.

The proximity of the photon to the excitons/wall could be measured through the measurement of voltage induction and the rate at which the photon's proximity to the wall changes in response to a single perturbatory CFL of known strength. As this rate of change would necessarily be linked to inertia (and therefore to mass,) the rate of change to orbital diameter induced by this additional CFL could be used as a proxy in order to accurately estimate the mass of any given photon.

## Conclusion

This mechanism should enable an experiment to confirm novel theory concerning the presence of and nature of mass within photons. This author predicts that photon mass is extant, but variable. It is lowest in high-energy photons and lower in photons with longer flight-times. This contention is supported by the notion (*ibid.*) that spin velocity during electron-electron reflection events (i.e. photon generation through spontaneous emission) is greatest in the process of generating higher-energy photons. The greater the spin velocity during the brief window in which angular inversion is transpiring, the greater the magnetic outflow and therefore the greater a quantity of Higgs Bosons are expelled during the reflection event with Higgs being the proverbial baby being thrown out with the magnetic bathwater. The spin velocity dictates the energy level, but also dictates a lower mass of the photon. Only with a variable mass that tends to decrease with increased energy levels can the correlative but slightly

inconsistent observed proportional relationship between phase height and wavelength of light be explained.

Another first which would be enabled by the creation of such a mechanism would be the ability to observe a photon from birth until death as it could be made to circulate indefinitely, or at least until its energy is depleted.